Blue Grass exchange

A Partnership for Safe Chemical Weapons Destruction

Spring 2006

IN THIS ISSUE

BGCAPP

Blue Grass Chemical Agent-Destruction Pilot Plant

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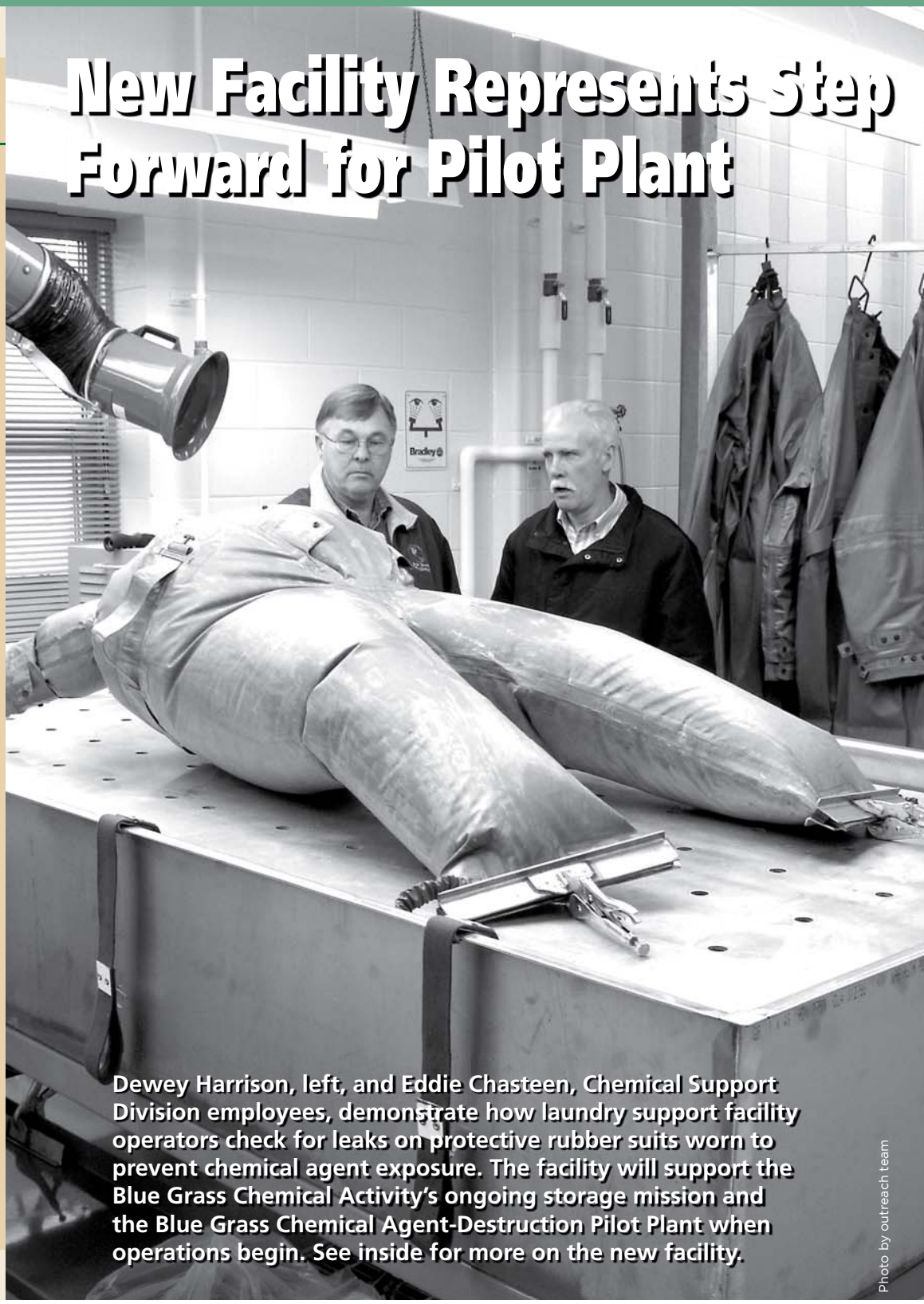
New Facility Represents Step Forward for Pilot Plant



Dewey Harrison, left, and Eddie Chasteen, Chemical Support Division employees, demonstrate how laundry support facility operators check for leaks on protective rubber suits worn to prevent chemical agent exposure. The facility will support the Blue Grass Chemical Activity's ongoing storage mission and the Blue Grass Chemical Agent-Destruction Pilot Plant when operations begin. See inside for more on the new facility.

Photo by outreach team

Message From the Managers

Agents of Change

By JIM FRITSCHE
Blue Grass Chemical Agent-Destruction Pilot Plant
Site Project Manager

And CHRIS HAYNES
Bechtel Parsons Blue Grass Project Manager

Spring is always a time for growth and change, and we have our share here with the project. Earlier this year, Jean Reed became the special assistant, Chemical and Biological Defense and Chemical Demilitarization Programs, in the Office of the Assistant to the Secretary of Defense (Nuclear and Chemical and Biological Defense Programs). Mr. Reed has worked as a House Armed Services Committee staffer on chemical demilitarization and threat reduction for more than 15 years. Retiring from the Army as a Colonel in 1990, Mr. Reed has extensive experience in chemical and biological defense and research and development assignments. We look forward to working with him.

Kim Irwin, the Bechtel Parsons Blue Grass business manager, will begin a new position as the business services manager for Bechtel SAIC, LLC, the prime contractor for the U.S. Department of Energy's Yucca Mountain Project in Las Vegas. Ms. Irwin has been with the BGCAPP project from its inception and, while we are sorry to see her go, we wish her the best in her new position.

Teams formed to study non-contaminated and contaminated rocket motor disposal options have issued their final reports to the technical risk assessment team. The teams assessed the disposal options based on safety, regulations, treaty compliance, technical maturity and cost requirements. The teams are to be commended on jobs well done. Please see the related article on page 5.

Other News

- While we continue work on the intermediate design of the facility, the life cycle cost estimate is nearing completion. The life cycle cost estimate for the government includes estimates for facility construction, testing, operations and closure. This major collaborative effort reinforces our commitment to ensure the safety of our workers and the public, while practicing good stewardship of public funds.
- On Jan. 4, we met our one millionth hour of work with no lost-time accidents. We are very proud of the project's safety record.
- Construction efforts in site preparation have been completed. Contractors used a grinding machine to convert small trees, branches and leaves into mulch. Under contract to the Louisville District of the Army Corps of Engineers, contractors cleared land from Kentucky State Highway 52 to the future site of the Blue Grass Chemical Agent-Destruction Pilot Plant.
- Bechtel Parsons Blue Grass hosted a pre-bid meeting and job walk-down for the access road and earthwork subcontract package that we issued in February. We had a strong showing from 13 Kentucky potential subcontractors and remain on schedule for subcontract award and actual mobilization this spring. You can read more about construction and subcontracting activities on page 6.
- Our upcoming milestones include completing the intermediate design of the Munitions Demilitarization Building, leading to final design completion in fall 2007. The chemical weapons stored at the depot will be safely destroyed in the Munitions Demilitarization Building, which will function as the heart of the pilot plant.

News Brief: President's Proposed Budget Includes Funds for Chemical Weapons Destruction at Blue Grass Army Depot

President Bush's budget request for fiscal year 2007 includes $174.9 million for the chemical weapons destruction project at the Blue Grass Army Depot. This figure includes $85.7 million for research, development, testing and evaluation and $89.2 million for military construction. The requested funds would be used for completion of the Blue Grass Chemical Agent-Destruction Pilot Plant redesign effort and services supporting the construction phase of the project. Funds will also be used to obtain support from other government agencies, as well as contract management.

The proposed budget was submitted to Congress on Feb. 6. Congress will review it in detail, and congressional defense committees and subcommittees may hold hearings regarding the budget submission. Once the committees agree on the budget, Congress will authorize and appropriate the funds. The approval process may last until the beginning of the fiscal year in October 2006 or later.

Madison County Resident Provides a History Lesson

Imagine a time when a thousand airplanes was just a dream. It was the beginning of World War II, and Toivo "Whitey" Puro, now 94 years old, was helping to build those planes and the chemical munitions they carried.

Today, nearly 65 years later, he wants to see those munitions destroyed.

How passionate is Puro about getting rid of chemical weapons? Passionate enough to write a book about the subject. *Nerve Gas: The Quiet Peacekeeper*, Puro's first publication, bridges the "information gap between what we did and what [the chemical weapons destruction project] is doing," he said.

So how did it all start?

In 1933, Puro graduated from what is now known as McDaniel College, in Westminster, Md. He attended on a scholarship and remembers that his tuition for four years, including room and board, was $500. Puro graduated during the Depression and struggled to find work as an engineer.

Later, while the U.S. Army was building airplanes for France, Puro worked as a "detailer" near Baltimore, Md., drafting

Photo by outreach team

Toivo "Whitey" Puro, Madison County resident, presents Site Project Manager Jim Fritsche, left, with a copy of his book, Nerve Gas: The Quiet Peacekeeper.

metal parts for the Martin B-26 Bomber. His starting salary was 52.5 cents an hour. After an unsuccessful request for a wage increase, Puro moved on to work in munitions.

"The war was coming on, and there was a lot [of military work] out there," he said.

Puro found work in the engineering department of a munitions plant in Elkton, Md., producing 40 mm anti-aircraft shells. A problem on the assembly line prompted Puro and another worker to design a machine to assemble 40 mm anti-aircraft shells. The newly designed machine was a success. On Nov. 10, 1941, they received the "E Award," the highest award for a production plant during the war.

One month later, Pearl Harbor was attacked.

Puro continued to build munitions at Edgewood Arsenal, Md., after World War II. His career in munitions spanned the Vietnam War and the Cold War, during which "we built all the poison gas we could," he said. Puro built flame throwers during the Vietnam Conflict.

Puro also worked at Fort Bragg, N.C., where chemical weapons were loaded and tested. Destroying chemical weapons "is dangerous, but not to these people who know how," he said, referring to the Army.

Puro wants the Army to be familiar with the content of his book. That's why he gave a copy to Jim Fritsche, BGCAPP site project manager. "This is yours to read and understand," Puro said as he presented the book to Fritsche.

All in a Day's Work: Environmental Plans and Permitting Activities

Photo by outreach team

Clockwise from left, Ken Liberty, Tom Kurkjy, Kevin Regan, Leo Weitzman and Scott Luna work together at BGCAPP to ensure the plant's environmental permits are in order.

The Blue Grass Chemical Agent-Destruction Pilot Plant environmental team works with the Kentucky Department for Environmental Protection to meet the compliance schedule established in the Research, Development and Demonstration permit. The team's responsibilities include ensuring that environmental plans are in place before construction work begins and developing environmental compliance schedules.

New Facility Maintains Chemical Personal Protective Gear

The opening of the Blue Grass Army Depot's Chemical Support Division, Protective Clothing and Equipment Building, also known as the Laundry Facility, is a significant step toward the safe destruction of the chemical weapons stored at the depot. "This is the first step forward," said Lt. Col. George Shuplinkov, Blue Grass Chemical Activity commander.

Photos by outreach team

Rubber suits are stored on an automated system, similar to the system used by a commercial dry cleaning facility.

The Laundry Facility was built to support operations at the Blue Grass Chemical Activity (BGCA) and the future Blue Grass Chemical Agent-Destruction Pilot Plant. The current mission of the facility is to check for leaks on protective rubber suits worn by toxic chemical workers and depot employees to prevent chemical agent exposure.

Prior to building the new facility, workers were accomplishing their mission in less efficient surroundings. "Chemical Activity folks are really dedicated to maintaining the equipment to help protect their fellow employees. Their goal is to keep people safe," said Rhonda Shay, BGCA Program Manager Assembled Chemical Weapons Alternatives coordinator.

While design efforts began in 1996, the building took only 18 months to construct. The 11,000-square-foot facility cost $2.2 million. The Assembled Chemical Weapons Alternatives (ACWA) program provided $500,000 for equipment; in addition, ACWA provided military construction funding to cover the remaining cost.

"This is an example of the project moving forward to operations," said Jim Fritsche, site project manager for the pilot plant. "Building a new facility and installing innovative technology is another example of our ongoing commitment to safety."

The facility is projected to run two shifts, six days a week during plant operations. The laundry's six employees are cross-trained and rotate every three months between the mass testing and protective clothing divisions of the dual-function facility.

In the mask testing division, workers are fitted for masks – which are required to enter a chemical limited area – and trained to use them correctly. The air inside a properly fitted mask is at least 3,000 times cleaner than ambient air.

The masks are stored in a mechanized filing system that works like an oversized Rolodex. Workers punch in a personal code, and the machine rotates the storage shelf to the front. Each time the masks are used, they are stripped down and re-assembled.

The protective clothing division includes the laundry equipment and storage for rubber and soft goods. The rubber suits are stored on an automated carousel-like machine similar to one used by a dry cleaner – punch a code and the suits appear.

Protective masks are used as an emergency precaution for employees entering the restricted chemical limited area and are mandatory for those entering the igloos where the weapons are safely stored.

From left, Lt. Col. George Shuplinkov, Jim Fritsche and Col. Rick Mason work together at the recent ribbon-cutting ceremony for the Laundry Facility.

Several different types of suits are used in the chemical activity area. The level of protection is based upon the potential level for exposure. Some suits include a personal air supply.

Suits are routinely tested for tears and leaks. A suit is blown up like a balloon and placed on a table with standing soapy water. The soapy water aids in visual detection of air leaks. Special lighting is used to check the seams. If workers find a small leak, they patch the suit, although a suit can be repaired only a limited number of times.

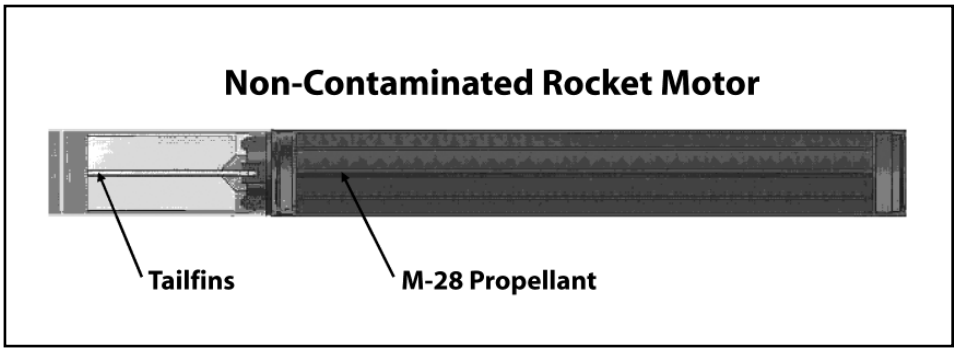
Suits that are thought to be contaminated never make it into the Laundry Facility. Those suits remain in the chemical limited area. They are stored in a suit shed where they are decontaminated based on exposure.

Sometimes decontamination can be as simple as using a solution of hot water and industrial-strength bleach. The suits are then monitored for three days. If the suits test negative for contamination, they are returned to the Laundry Facility.

"No matter what comes down the pipe, we are ready," said employee Eddie Chasteen, Chemical Support Division Chief.

Project Experts Examine Non-Contaminated and Contaminated Rocket Motor Disposal Options

As the project moves closer to building a plant that will destroy the nation's last chemical weapons stockpile, the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) team continues to study options to make the design safer and more affordable and reduce operational schedules.



Non-contaminated rocket motor sections of the M-55s stored at the depot may be separated from the warhead sections using a rocket cutting machine rather than slicing the entire rocket using a rocket shear machine.

One redesign option is the alternative treatment of leaker rockets for both contaminated and non-contaminated rocket motors.

As a result of fires experienced at chemical weapons destruction facilities in Oregon and Arkansas during the destruction of M-55 rockets, project experts have adjusted their plans for rocket separation.

The most notable of these adjustments is that the non-contaminated motor sections of the rockets stored at the Blue Grass Army Depot may be separated from the warhead section using a rocket cutting machine rather than slicing the entire rocket using the standard rocket shear machine. This will create two distinct disposal processes: one for the agent-containing warhead sections and contaminated rocket motors, and one for the non-contaminated rocket motors. Contaminated rocket motors may come from rockets that have been observed to be "leakers," those that have been detected in the igloos or may be detected in the pilot plant facility before the start of the demilitarization process.

The project formed two teams to look at both the contaminated and non-contaminated rocket motor disposal options.

Contaminated Rocket Motor Disposal

After examining the technical options and considering public input, the contaminated rocket motor team recommended that motors from leaking munitions would not be disposed of in the same manner as non-contaminated motors. The team concluded that they could be handled and destroyed in the Munitions Demilitarization Building (MDB) using the same enhanced rocket shear process that is being used at the other chemical weapons destruction facilities that are destroying the rockets.

"This will allow us to destroy the contaminated rockets without causing a redesign of the existing process," said John Ursillo, process design manager for Bechtel Parsons Blue Grass and the leader of the contaminated rocket motor team.

The plan is to use the rocket cutting machine followed by the rocket shear machine and energetics batch hydrolyzer units to separate the motors and warheads, shear the warheads and the contaminated rocket motors and then hydrolyze the energetics.

"We would be shearing a very small number of rocket motors relative to the many thousands that had been done at baseline incineration plants with a comparatively low overall occurrence rate of problems," Ursillo said. "And we would be doing it with equipment that continues to take advantage of the very latest improvements coming from the other rocket destruction facilities."

The project's technical risk assessment team endorsed the recommendation for the contaminated rocket motors for incorporation into the design.

Non-Contaminated Rocket Motors

The current MDB design has been revised to include separation of rocket motors from warheads in the explosive containment vestibule using the rocket cutting machine, with the warheads passing into the explosion containment chamber for punch, drain, flush and shear and subsequent processing in the energetics batch hydrolyzer system. Separated rocket motors will be stored in temporary storage/transport containers before being moved outside the MDB for disposal. Removal of rocket motor processing from within the pilot plant contributed to significant life cycle cost savings.

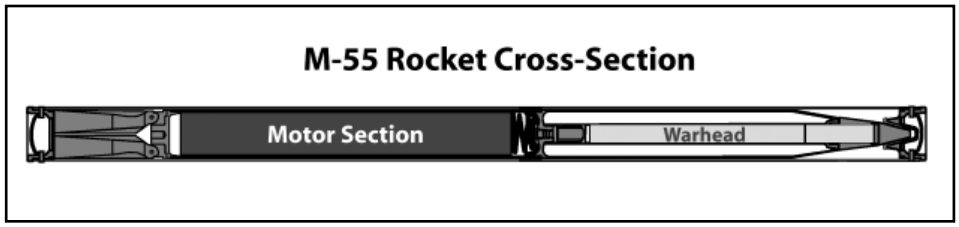
The team "was chartered with evaluating on-site and off-site options for disposal of non-contaminated rocket motors in compliance with safety, treaty, permitting, technical maturity, stakeholder, and schedule requirements, and defining the associated cost for each option," said Dan Jensen, General Atomics BGCAPP project manager and team leader. "The team had numerous discussions on the technologies themselves

continued on page 6

Project Experts Examine Non-Contaminated and Contaminated Rocket Motor Disposal Options

continued from page 5

and the methods used to evaluate and rank them. There was a diversity of opinion as to the importance of on-site versus off-site disposal options; the potential impact to stakeholders along any potential transport route and at off-site receiving facilities; the extent of design and testing involved for each of the technologies and equipment and other issues."



This schematic depicts a cross-section of an M-55 rocket stored at the Blue Grass Army Depot. Experts from the Blue Grass Chemical Agent-Destruction Pilot Plant have been studying options for treatment of contaminated and non-contaminated rocket motors after they are separated from the warhead.

Public Participation and Involvement

The BGCAPP team briefed the Chemical Destruction Community Advisory Board (CDCAB) Secondary Waste Working Group (SWWG). While the focus of the meeting was discussion of options for the non-contaminated motors, the group also received an update on the contaminated rocket motor disposal initiative.

Of the three primary options for non-contaminated rocket motors – including 10 specific treatments – the working group preferred on-site caustic hydrolysis/supercritical water oxidation. However, the group decided to wait for additional data and continue inviting public participation before making a final recommendation later this year.

"The continued engagement of the public by ACWA and Bechtel Parsons on issues associated with the disposal program, in this case, how to deal with uncontaminated rocket motors, helps maintain momentum towards the ultimate goal," said Craig Williams, SWWG chair and CDCAB co-chair. "This involvement process continues to reap benefits for all concerned by reaching agreement early on, thus avoiding future problems."

Access Road and Earthworks Construction to Begin at Depot

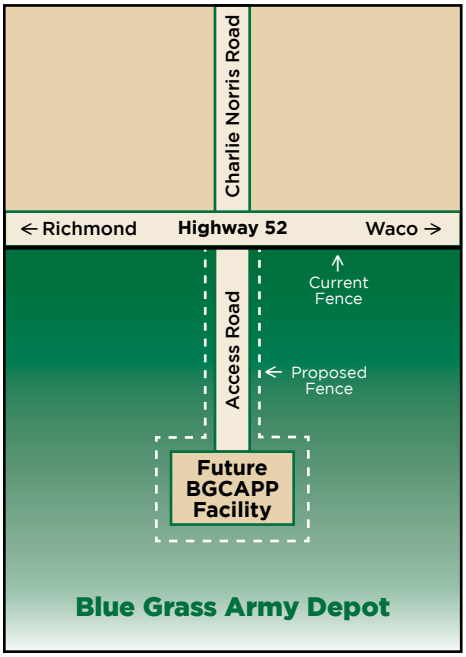
Construction crews may soon be visible from Kentucky State Road 52 along the boundary of the Blue Grass Army Depot installing a new on-depot access road for the Blue Grass Chemical Agent-Destruction Pilot Plant facility.

The access road and earthworks subcontract is expected to be awarded this spring. The scope of work contained in the earthwork subcontract includes site clearing and grubbing, earthwork cut and fill with associated grading, a site sedimentation basin, a new two-lane asphalt road with connections into existing depot roads, grass seeding and stone placement.

The task also includes construction of a new gate across from Charlie Norris Road.

"We are excited that the time for construction is finally here," said Rob Rumpke, executive director of the Richmond Chamber of Commerce and a member of the Chemical Destruction Community Advisory Board, during a recent workshop for potential bidders at Eastern Kentucky University. "A year ago at this time, we were not sure if there would even be a project to dispose of the weapons and here we are today talking about dirt being moved and roads being built."

In addition to the access road and earthworks package, the next phase of construction will include the Access Control Building, underground piping, underground utilities and site fencing. The Bechtel Parsons Blue Grass team expects to request proposals for these packages in late summer and award these additional subcontracts this fall. For more information on employment, subcontracting or supply opportunities, visit www.bechtelparsonsbgcapp.com.



This map shows the location of the new gate and access road to be constructed for the Blue Grass Chemical Agent-Destruction Pilot Plant.

Citizen *Exchange*

Citizen Exchange focuses on questions frequently asked by members of the community. If you have a question you would like to have answered in this section, please send it to Editor, Blue Grass Exchange, ATTN: Blue Grass Chemical Stockpile Outreach Office, 1000 Commercial Drive, Suite 2, Richmond, KY 40475. You may also send questions via e-mail to bgoutreach@bah.com.

Question: I noticed the clearing of trees near the Blue Grass Army Depot. What construction activities have been approved for the chemical weapons destruction plant?

Answer: Pre-construction activities have already started, including site clearing and grubbing, earthwork cut and fill, grading, installation of a two-lane asphalt road, and grass and gravel installation. The construction of buildings is not expected to begin until 2007.

Question: I'm an owner of a small business and would like the opportunity to bid for subcontracts on the pilot plant project. How do I submit a request for proposal?

Answer: Information regarding activities, requests for proposals and vendor/supplier information can be found at http://www.bechtelparsonsbgcapp.com/Opportunities.htm. Submitting a request for proposal is a detailed process. For more information or assistance, contact Diane Osbourne, small business program advocate for Bechtel Parsons Blue Grass, at (859) 624-6204. Bidders are encouraged to utilize resources available through the Kentucky Procurement Assistance Program. For more information, contact Debbie McKnight at (800) 838-3266 or visit http://www.thinkkentucky.com/kyedc/proassist.asp.

Question: How do the U.S. Army Chemical Materials Agency and the Program Manager Assembled Chemical Weapons Alternatives plan to destroy the M-55 rockets stored at Blue Grass Army Depot?

Answer: Formal integrated process teams were established to study disposal options associated with both contaminated and non-contaminated rocket motors. Additionally, the government/contractor teams are mapping out a thoroughly documented process to sample M-55 rocket motors from the Blue Grass stockpile. Results of this analysis could provide information on whether nitroglycerin migration has occurred in a similar manner to rockets tested from other stockpiles; on environmental conditions associated with rocket storage; and on disassembly specifications that could be applied to pilot plant equipment design. More information will be provided as this initiative moves through the planning stages.

Chemical Weapons Destruction Board Will Meet in June

Photo by outreach team

Left, Ramesh Melarkode, Blue Grass Army Depot employee, and Brian Ballard with the Kentucky Department for Environmental Protection talk at a CDCAB meeting.

Mark your calendar...

for the next Chemical Destruction Community Advisory Board Meeting on **June 14 at 1:30 p.m.** at Eastern Kentucky University's Carl D. Perkins Building. The governor-appointed Kentucky Chemical Demilitarization Citizens' Advisory Commission will meet at the conclusion of the CDCAB meeting. Come see local leaders in action representing the views of the community on the chemical weapons destruction project at the Blue Grass Army Depot. For more information, call **(859) 626-8944** or send an e-mail message to **bgoutreach@bah.com**.

Changes at the Blue Grass Chemical Stockpile Outreach Office: New Member, New Building

Please stop by our new location at 1000 Commercial Drive, Suite 2, at the corner of Gibson Bay Drive and the Eastern Bypass in Richmond, Monday through Friday from 8:30 a.m. to 5 p.m.

Blue Grass Chemical Stockpile Outreach Office

The outreach office provides the community with a one-stop information source for the chemical weapons destruction project at the Blue Grass Army Depot. Staff members are on hand to help you obtain information on all aspects of the safe storage and disposal of the chemical weapons stockpile.

Meet the newest member of the outreach team: Rebecca Toy, community outreach specialist. A Kentucky native, Toy supports activities within the outreach program. She holds a bachelor's degree in public relations from Eastern Kentucky University and is a member of the Public Relations Society of America.

Photos by outreach team

Rebecca Toy, community outreach specialist, staffs a booth at a recent community event.

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